(a) obtaining a DNA or RNA sample from a patient; and

(b) screening the DNA or RNA sample with the oligonucleotide probe of claim 9 to detect a hMLH1 mutant 1, a hMSH2 mutant 1, a hMSH2 mutant 2, or a hMSH2 mutant 3, wherein binding of the oligonucleotide probe to the DNA or RNA sample is indicative of the presence of the hMLH1 mutant 1, the hMSH2 mutant 1, the hMSH2 mutant 2, or the hMSH2 mutant 3 and hereditary non-polyposis colorectal cancer.

3. (amended) A method for predicting susceptibility of a patient to developing hereditary non-polyposis colorectal cancer comprising:

(a) obtaining a DNA or RNA sample from a patient; and

(b) screening the DNA or RNA sample with the oligonucleotide probe of claim 9 to detect a hMLH1 mutant 1, a hMSH2 mutant 1, a hMSH2 mutant 2, or a hMSH2 mutant 3, wherein binding of the oligonucleotide probe to the DNA or RNA sample is indicative of the presence of the hMLH1 mutant 1, the hMSH2 mutant 1, the hMSH2 mutant 2, or the hMSH2 mutant 3 and hereditary non-polyposis colorectal cancer.

9. (amended) An oligonucleotide probe complementary to a hMLH1 mutant 1, hMSH2 mutant 1, hMSH2 mutant 2, or hMSH2 mutant 3.